

What is claimed is:

1. A machine tool having a base, said machine tool comprising:
a first stationary rail connected to said base and having a first length
extending generally along a first direction;
5 a first movable rail engaging said first stationary rail and extending
generally parallel to said first stationary rail; and
a fence assembly including:
a fence extending generally perpendicular to said first movable
rail; and
10 a first mount connected to said fence and adapted to engage
said first movable rail, said first movable rail being movable with respect to said first
stationary rail such that said fence assembly is movable generally along said first
direction over a range which exceeds said first length.
2. The machine tool according to Claim 1 further comprising a cutting tool,
15 said cutting tool defining a cutting direction which is generally perpendicular to said
first direction.
3. The machine tool according to Claim 2 wherein, said machine tool
comprises a table saw and said cutting tool comprises a saw blade.

4. The machine tool according to Claim 1 further comprising:

a second stationary rail connected to said base and having a second length extending generally along said first direction;

a second movable rail engaging said second stationary rail and
5 extending generally parallel to said second stationary rail; and

said fence assembly further comprising a second mount connected to said fence and adapted to engage said second movable rail, said second movable rail being movable with respect to said second stationary rail.

5. The machine tool according to Claim 4 wherein, said first movable rail
10 is selectively lockable to said first stationary rail and said second movable rail is selectively lockable to said second stationary rail.

6. The machine tool according to Claim 4 further comprising a first over-center latch for connecting said first mount to said first movable rail and a second over-center latch for connecting said second mount to said second movable rail.

15 7. The machine tool according to Claim 4 wherein, said first movable rail includes a first locating pin, said second movable rail includes a second locating pin, said first mount defines a first locating slot and said second mount defines a second locating slot, said first locating slot engaging said first locating pin to properly position said first mount with respect to said first movable rail, said second locating slot
20 engaging said second locating pin to properly position said second mount with respect to said second movable rail.

8. The machine tool according to Claim 4 wherein, said first movable rail includes a first rack defining a first plurality of rack teeth and said second movable rail includes a second rack defining a second plurality of rack teeth, said machine tool further comprising a pinion shaft assembly rotatably secured to said machine tool, said pinion shaft assembly including a first pinion gear matingly engaging said first plurality of rack teeth and a second pinion gear matingly engaging said second plurality of rack teeth such that rotation of said pinion shaft assembly causes movement of said first and second movable rail.

9. The machine tool according to Claim 4 further comprising a cutting tool, said cutting tool defining a normal cutting direction which is generally perpendicular to said first direction.

10. The machine tool according to Claim 9 wherein, said pinion shaft assembly is adjustably secured to said machine tool such that the parallelism of said fence with respect to said cutting tool can be adjusted.

11. The machine tool according to Claim 8 wherein, said pinion shaft assembly is biased towards said first and second movable rails.

12. The machine tool according to Claim 8 wherein, said first rack defines an enlarged tooth disposed at one end of said rack, said enlarged tooth engaging said first pinion gear to limit said movement of said first movable rail.

13. The machine tool according to Claim 2 wherein, said first mount is adjustable with respect to said first movable rail.

14. The machine tool according to Claim 13 wherein, said first mount is capable of adjusting the plumbness of said fence with respect to said cutting tool.

15. The machine tool according to Claim 13 wherein, said first mount is capable of adjusting the parallelism of said fence with respect to said cutting tool.

16. The machine tool according to Claim 1 further comprising a support member pivotably secured to said fence assembly.

17. The machine tool according to Claim 16 wherein, said support member is lockably secured into at least one position.

5 18. A machine tool comprising:

a work table having side edges and a front edge, said front edge defining a width of said work table between said side edges and a first direction extending generally parallel to said front edge;

a first stationary rail connected to said machine tool and extending
10 generally parallel to said first direction, said first stationary rail having a length which is not greater than said width of said work table;

a first movable rail engaging said first stationary rail and extending generally parallel to said first stationary rail; and

a fence assembly including:

15 a fence extending generally perpendicular to said first movable rail; and

a first mount connected to said fence and adapted to engage said first movable rail, said first movable rail being movable with respect to said first stationary rail such that said fence can be located beyond said width of said work
20 table outwardly of either side edge.

19. The machine tool according to Claim 18 further comprising a cutting tool, said cutting tool defining a cutting direction which is generally perpendicular to said first direction.

20. The machine tool according to Claim 19 wherein, said machine tool
25 comprises a table saw and said cutting tool comprises a saw blade.

21. The machine tool according to Claim 18 further comprising:

a second stationary rail connected to said machine tool and having a length which is not greater than the width of said work table, said second stationary rail extending generally parallel to said first direction;

5 a second movable rail engaging said second stationary rail and extending generally parallel to said second stationary rail; and

said fence assembly further comprising a second mount connected to said fence and adapted to engage said second movable rail, said second movable rail being movable with respect to said second stationary rail.

10 22. The machine tool according to Claim 21 wherein, said first movable rail is selectively lockable to said first stationary rail and said second movable rail is selectively lockable to said second stationary rail.

23. The machine tool according to Claim 21 further comprising a first over-center latch means for latching said first mount to said first movable rail and a second
15 over-center latch means for latching said second mount to said second movable rail.

24. The machine tool according to Claim 21 wherein, said first movable rail includes a first locating pin, said second movable rail includes a second locating pin, said first mount defines a first locating slot and said second mount defines a second locating slot, said first locating slot engaging said first locating pin to properly position
20 said first mount with respect to said first movable rail, said second locating slot engaging said second locating pin to properly position said second mount with respect to said second movable rail.

25. The machine tool according to Claim 21 wherein, said first movable rail includes a first rack defining a first plurality of rack teeth and said second movable rail includes a second rack defining a second plurality of rack teeth, said machine tool further comprises a pinion shaft assembly rotatably secured to said machine tool, said
5 pinion shaft assembly including a first pinion gear matingly engaging said first plurality of rack teeth and a second pinion gear matingly engaging said second plurality of rack teeth such that rotation of said pinion shaft assembly causes movement of said first and second movable rails.

26. The machine tool according to Claim 25 wherein, said first rack defines
10 an enlarged tooth disposed at one end of said rack, said enlarged tooth engaging said first pinion gear to limit said movement of said first movable rail.

27. The machine tool according to Claim 25 wherein, said pinion shaft assembly is biased towards said first movable rail.

28. The machine tool according to Claim 25 further comprising a cutting
15 tool, said cutting tool defining a normal direction which is generally perpendicular to said first direction.

29. The machine tool according to Claim 28 wherein, said pinion shaft assembly is adjustably secured to said machine tool such that the parallelism of said fence with respect to said cutting tool can be adjusted.

20 30. The machine tool according to Claim 19 wherein, said first mount is adjustable with respect to said first movable rail.

31. The machine tool according to Claim 30 wherein, said first mount is capable of adjusting the plumbness of said fence with respect to said cutting tool.

25 32. The machine tool according to Claim 30 wherein, said first mount is capable of adjusting the parallelism of said fence with respect to said cutting tool.

33. The machine tool according to Claim 18 further comprising a support member pivotably secured to said fence assembly.

34. The machine tool according to Claim 33 wherein, said support member is lockably secured into at least one position.

5 35. A fence assembly comprising:

a first stationary rail;

a first movable rail telescopically engaging said first stationary rail;

a second stationary rail spaced from and disposed generally parallel to said first stationary rail;

10 a second movable rail telescopically engaging said second stationary rail; and

a fence disposed between and connected to said first and second movable rails.

36. The fence assembly according to Claim 35 wherein, said fence assembly is mounted on a machine tool.

37. The fence assembly according to Claim 35 wherein, said stationary rails define a region, said fence being movable due to telescoping movement of said movable rails to a position outside of said region.

38. The fence assembly according to Claim 35 wherein, movement of said first movable rail along said first stationary rail for a given distance causes corresponding movement of said second movable rail along said second stationary rail for substantially the same distance.

39. The fence assembly according to Claim 35 wherein, said first movable rail is selectively lockable to said first stationary rail.

40. The fence assembly according to Claim 35 further comprising an over-center latch for connecting said fence to said first movable rail.

41. The fence assembly according to Claim 35 wherein, said first movable rail includes a locating pin and said first mount defines a locating slot, said locating
5 slot engaging said locating pin to properly position said first mount with respect to said first movable rail.

42. The fence assembly according to Claim 35 wherein, said fence is adjustably connected to said first movable rail.

43. The fence assembly according to Claim 35 wherein, said first movable
10 rail includes a first rack defining a first plurality of rack teeth and said fence assembly further comprises a pinion shaft assembly including a first pinion gear matingly engaging said first plurality of rack teeth such that rotation of said pinion shaft assembly causes movement of said first movable rail.

44. The fence assembly according to Claim 43 wherein, said pinion shaft
15 assembly is biased towards said first movable rail.

45. The machine tool according to Claim 43 wherein, said first rack defines an enlarged tooth disposed at one end of said rack, said enlarged tooth engaging said first pinion gear to limit said movement of said first movable rail.

46. The fence assembly according to Claim 43 wherein, said second
20 movable rail includes a second rack defining a second plurality of rack teeth and said pinion shaft assembly includes a second pinion gear matingly engaging said second plurality of rack teeth such that said rotation of said pinion shaft assembly causes movement of said second movable rail.

47. The machine tool according to Claim 46 wherein, said pinion shaft assembly is adjustably secured to said machine tool such that the parallelism of said fence with respect to said cutting tool can be adjusted.

48. The fence assembly according to Claim 35 further comprising a support
5 member pivotably secured to said fence assembly.

49. The fence assembly according to Claim 48 wherein, said support member is lockably secured into at least one position.

50. A method of positioning a fence on a machine tool, said method comprising the steps of:

10 providing first and second stationary rails fixedly secured to said machine tool;

engaging first and second movable rails with said first and second stationary rails, respectively, said first and second movable rails including a first and second plurality of rack teeth, respectively;

15 engaging first and second pinion gears disposed about a shaft with said first and second plurality of rack teeth, respectively;

connecting a fence to said first and second movable rails; and

rotating said shaft to thereby rotate said first and second pinion gears to simultaneously move said movable rails and position said fence.

20

51. A machine tool comprising:

a work table having side edges disposed generally parallel to a first direction;

a first stationary rail connected to said work table and having a first specified length extending generally perpendicular to said first direction, said first stationary rail not extending outwardly of said side edges;

a first movable rail telescopically engaging said first stationary rail and extending generally perpendicular to said first direction; and

a fence assembly comprising:

a fence extending generally perpendicular to said first movable rail so as to be generally parallel to said first direction; and

a first mount connected to said fence and adapted to engage said first movable rail, said first movable rail being movable with respect to said first stationary rail such that said fence assembly is movable in a direction generally perpendicular to said first direction so as to be positionable outwardly of at least one of said side edges.

52. The machine tool according to Claim 51 further comprising a cutting tool, said cutting tool defining a cutting direction which is generally parallel to said first direction.

53. The machine tool according to Claim 52 wherein, said machine tool comprises a table saw and said cutting tool comprises a saw blade.

54. The machine tool according to Claim 52 wherein, said cutting tool and said fence extend generally parallel to each other, said machine tool further comprising means for maintaining the parallelism of said fence and said cutting tool when said fence assembly is moved due to movement of said movable rail.

55. The machine tool according to Claim 51 wherein, said first movable rail is selectively lockable to said first stationary rail.

56. The machine tool according to Claim 51 further comprising an over-center latch for connecting said first mount to said first movable rail.

5 57. The machine tool according to Claim 51 wherein, said first movable rail includes a locating pin and said first mount defines a locating slot, said locating slot engaging said locating pin to properly position said first mount with respect to said first movable rail.

58. The machine tool according to Claim 51 wherein, said first movable rail
10 includes a first rack defining a first plurality of rack teeth and said machine tool further comprises a pinion shaft assembly rotatably secured to said machine tool, said pinion shaft assembly including a first pinion gear matingly engaging said first plurality of rack teeth such that rotation of said pinion shaft assembly causes movement of said first movable rail.

15 59. The machine tool according to Claim 58 wherein, said pinion shaft assembly is biased towards said first movable rail.

60. The machine tool according to Claim 58 wherein, said first rack defines an enlarged tooth disposed at one end of said rack, said enlarged tooth engaging said first pinion gear to limit said movement of said first movable rail.

20

61. The machine tool according to Claim 51 further comprising:

a second stationary rail connected to said machine tool and having a second specified length extending generally perpendicular to said first direction;

a second movable rail telescopically engaging said second stationary rail and extending generally perpendicular to said first direction of said machine tool;
5 and

said fence assembly further comprising a second mount connected to said fence and adapted to engage said second movable rail, said second movable rail being movable with respect to said second stationary rail.

10 62. The machine tool according to Claim 61 wherein, said first movable rail includes a first rack defining a first plurality of rack teeth and said second movable rail includes a second rack defining a second plurality of rack teeth, said machine tool further comprises a pinion shaft assembly rotatably secured to said machine tool, said pinion shaft assembly including a first pinion gear matingly engaging said first plurality
15 of rack teeth and a second pinion gear matingly engaging said second plurality of rack teeth such that rotation of said pinion shaft assembly causes movement of said first and second movable rail.

63. The machine tool according to Claim 62 wherein, said pinion shaft assembly is adjustably secured to said machine tool such that the parallelism of said
20 fence with respect to said first direction can be adjusted.

64. The machine tool according to Claim 51 wherein, said first stationary rail and said first movable rail are tubular.

65. A machine tool having a cutting tool defining a normal cutting direction, said machine tool comprising:

a first and a second stationary rail connected to said machine tool, said first and second stationary rails including first and second racks defining a first and second plurality of rack teeth, respectively;

a fence extending between said first and second racks; and

a pinion shaft assembly rotatably secured to said machine tool and interconnected between said fence and said first and second plurality of rack teeth, said pinion shaft assembly including first and second pinion gears matingly engaging said first and second plurality of rack teeth, respectively.

66. The machine tool according to Claim 65 wherein, said pinion shaft assembly includes a shaft extending through said fence.

67. The machine tool according to Claim 65 wherein, said first rack defines an enlarged tooth disposed at one end of said rack, said enlarged tooth engaging said first pinion gear to limit said movement of said fence.

68. A machine tool defining a first direction and comprising:

a first and a second stationary rail connected to said machine tool;

a first and a second movable rail engaging said first and second stationary rails, respectively, said first and second movable rails including first and second racks, respectively, defining a first and second plurality of rack teeth;

a pinion assembly including a shaft and a first and a second pinion gear matingly engaging said first and second plurality of rack teeth, respectively; and

a fence engaging said first and second movable rails.

69. The machine tool according to Claim 68 wherein, said first movable rail is selectively lockable to said first stationary rail and said second movable rail is selectively lockable to said second stationary rail.

70. The machine tool according to Claim 68 further comprising a first over-center latch for connecting said fence to said first moving rail and a second over-center latch for connecting said fence to said second movable rail.

71. The machine tool according to Claim 68 wherein, said first movable rail includes a first locating pin, said second movable rail includes a second locating pin, said fence defines a first locating slot and said fence defines a second locating slot, said first locating slot engaging said first locating pin to properly position said fence with respect to said first movable rail, said second locating slot engaging said second locating pin to properly position said fence with respect to said second movable rail.

72. The machine tool according to Claim 68 wherein, said pinion assembly is biased towards said movable rails.

73. The machine tool according to Claim 68 further comprising:
a table;
a first bearing mount secured to said table;
an adjustment plate having slotted apertures and mounted to said table by fasteners extending through said slotted apertures; and
a second bearing mount secured to said adjustment plate wherein, said shaft extends through and is supported by said bearing mounts.

74. A machine tool having a cutting tool with a normal cutting direction, said machine tool comprising:

a first stationary rail connected to said machine tool;

5 a first movable rail engaging said first stationary rail and extending generally perpendicular to said normal cutting direction, said first movable rail being movable with respect to said first stationary rail;

a fence assembly comprising:

a fence extending generally perpendicular to said first movable rail so as to be generally parallel to said normal cutting direction; and

10 a first mount connected to said fence and adapted to engage said first movable rail, said first mount being adjustable with respect to said first movable rail.

75. The machine tool according to Claim 74 wherein, said first movable rail is selectively lockable to said first stationary rail.

15 76. The machine tool according to Claim 74 further comprising an over-center latch for connecting said first mount to said first movable rail.

77. The machine tool according to Claim 74 wherein, said first movable rail includes a locating pin and said first mount defines a locating slot, said locating slot engaging said locating pin to properly position said first mount with respect to said
20 first movable rail.

78. The machine tool according to Claim 74 wherein, said first mount is capable of adjusting the plumbness of said fence with respect to said cutting tool.

79. The machine tool according to Claim 74 wherein, said first mount is capable of adjusting the parallelism of said fence with respect to said cutting tool.

80. The machine tool according to Claim 74 wherein, said first movable rail includes a first rack defining a first plurality of rack teeth and said machine tool further comprises a pinion shaft assembly rotatably secured to said machine tool, said pinion shaft assembly including a first pinion gear matingly engaging said first plurality of rack teeth such that rotation of said pinion shaft assembly causes movement of said first movable rail.

81. The machine tool according to Claim 80 wherein, said pinion shaft assembly is biased towards said first movable rail.

82. The machine tool according to Claim 81 wherein, said pinion shaft assembly is adjustably secured to said machine tool such that the parallelism of said fence with respect to said cutting tool can be adjusted.

83. The machine tool according to Claim 81 wherein, said first rack defines an enlarged tooth disposed at one end of said rack, said enlarged tooth engaging said first pinion gear to limit said movement of said first movable rail.

84. The machine tool according to Claim 74 further comprising:
a second stationary rail connected to said machine tool;
a second movable rail engaging said second stationary rail and extending generally perpendicular to said normal cutting direction, said second movable rail being movable with respect to said second stationary rail; and

said fence assembly further comprising a second mount connected to said fence and adapted to engage said second movable rail, said second mount being adjustable with respect to said second movable rail.

85. A fence assembly comprising:
a first rail;
a second rail spaced from and disposed generally parallel to said first rail;

5 a fence disposed between and connected to said first and second rails;
and

a support member pivotably secured to said fence.

86. The fence assembly according to Claim 85 wherein, said fence is adjustably connected to said first rail.

10 87. The fence assembly according to Claim 86 wherein, said fence is adjustably connected to said second rail.

88. A fence assembly comprising:

a fence; and

15 a support member pivotably secured to said fence and extending generally parallel to said fence.

89. The fence assembly according to Claim 88 wherein, said support member is movable between a first and a second position, said support member being both generally parallel to and perpendicular to said fence when in said first position.

20 90. The fence assembly according to Claim 89 wherein, said support member is releasably locked into said first position.

91. The fence assembly according to Claim 88 wherein, said fence includes first and second mounts, said support member being pivotably secured to said first and second mounts.

92. In a machine tool having a work table with a work supporting surface and front, rear and opposite side edges, a stationary rail extending along each of said front and rear edges between opposed side edges of said work supporting surface, said stationary rails not extending outwardly of said side edges and a fence
5 connected to said stationary rails, the improvement comprising means for increasing the effective size of said work supporting surface.

93. In a machine tool having a work table with a work supporting surface and front, rear and opposite side edges, a stationary rail extending along each of said front and rear edges between said side edges of said work supporting surface, said
10 stationary rails not extending outwardly of said side edges, the improvement comprising a movable rail engaging each said stationary rail and a fence mounted on said movable rails, said fence being movable beyond at least one of said side edges of said work supporting surface by moving said movable rails relative to said stationary rails.

15 94. A fence assembly for use in combination with a machine tool having a work table having an edge which defines a width of said work table, said fence assembly comprising:

a first stationary rail connected to said machine tool;
a first movable rail telescopically engaging said first stationary rail; and
20 a fence extending generally perpendicular to said first movable rail, said fence adapted to engage said first movable rail, said first movable rail being movable with respect to said first stationary rail such that said fence can be located beyond said width of said work table.

95. The machine tool according to Claim 94 wherein, said first movable rail
25 is selectively lockable to said first stationary rail.

96. The machine tool according to Claim 94 further comprising an over-center latch for connecting said fence to said first movable rail.

97. The machine tool according to Claim 94 wherein, said first movable rail includes a locating pin and said fence defines a locating slot, said locating slot engaging said locating pin to properly position said fence with respect to said first movable rail.

98. The fence assembly according to Claim 94 wherein, said machine tool includes a cutting tool having a cutting direction which is substantially perpendicular to said first movable rail, said fence being maintained substantially parallel to said cutting direction during movement of said first movable rail.

99. A fence assembly for use in combination with a machine tool having a work table having an edge which defines a width of said work table, said fence assembly comprising:

- a first stationary rail connected to said machine tool;
- a first movable rail telescopically engaging said first stationary rail; and
- a fence extending generally perpendicular to said first movable rail, said fence adapted to engage said first movable rail, said first movable rail being movable with respect to said first stationary rail such that said fence can be located beyond the end of said stationary rail.

100. A method of positioning a fence on a machine tool, said machine tool having a work table, a stationary rail connected to and extending between opposed edges of said work table and a movable rail engaging said stationary rail, said method comprising the steps of:

5 selectively connecting a fence to said movable rail at a predetermined location; and

 moving said movable rail with respect to said stationary rail such that said fence is located beyond an end of said stationary rail.

101. The method according to Claim 100 wherein, said machine tool
10 includes a cutting tool defining a cutting direction and wherein the step of selectively connecting the fence includes connecting the fence so as to extend substantially parallel to said cutting direction, and the step of moving said movable rail includes moving said movable rail so as to maintain said fence substantially parallel to said cutting direction.

15

102. A machine tool comprising:

- a work table defining a slot;
- a cutting tool extending through said slot in said work table, said cutting tool defining a cutting direction;
- 5 a first stationary rail connected to said machine tool;
- a first movable rail engaging said first stationary rail;
- a fence extending generally perpendicular to said first movable rail so as to be generally parallel to said cutting direction of said machine tool, said fence adapted to engage said first movable rail; and
- 10 an indicator for indicating the distance between said fence and said cutting tool, said indicator comprising:
 - a first stationary pointer connected to said machine tool;
 - a first scale connected to said first movable rail, said first scale and said first pointer cooperating to indicate the distance between said fence and said cutting tool over a portion of the movement of said first movable rail with respect to
 - 15 said first stationary rail;
 - a second stationary pointer connected to said machine tool;
 - a second scale connected to said first movable rail, said second scale and said second pointer cooperating to indicate the distance between said fence and said cutting tool over the remaining portion of the movement of said first
 - 20 movable rail with respect to said first stationary rail.

103. A fence assembly comprising:

a first movable rail;

a second movable rail spaced from said first movable rail;

a fence disposed between and connected to both said first and second

5 movable rails; and

means interconnecting said first and second movable rails such that movement of either one of said first or second movable rail causes corresponding movement of the other of said first or second movable rail.

104. A machine tool having a base, said machine tool comprising:

10 a first stationary rail connected to said base;

a first movable rail telescopically engaging said first stationary rail, said first stationary rail including a member extending towards said first movable rail, said first movable rail including a member extending towards said first stationary rail being positioned such that it does not interfere with said member on said first movable rail
15 during movement of said first movable rail.

105. The machine tool according to Claim 104 further comprising a second stationary rail connected to said base and a second movable rail telescopically engaging said second stationary rail.

106. The machine tool according to Claim 104 wherein, said member on said
20 stationary rail includes a pad located at each end of said stationary rail.

107. The machine tool according to Claim 104 wherein, said member on said movable rail includes a pad located at each end of said movable rail.

108. A machine tool having a base, said machine tool comprising:

a first stationary rail connected to said base, said stationary rail defining a tab extending longitudinally into said rail;

a first movable rail telescopically engaged over said first stationary rail;

5 and

a wedge assembly disposed within said first stationary rail, said wedge assembly being operable to urge said tab outwardly towards said first movable rail.

109. The machine tool according to Claim 108 wherein, said wedge assembly comprises:

10 a C-shaped base having an open end;

a wedge disposed within said open end of said base; and

a bolt extending through said wedge and threadably engaging said base.

110. The machine tool according to Claim 109 wherein, said C-shaped base
15 defines two cam surfaces and said wedge defines two cam surfaces, rotation of said bolt being operable to urge said cam surfaces on said wedge into abutting relationship with said cam surfaces on said base to urge said tab outwardly toward said first movable rail.

111. A machine tool comprising:

a first and second stationary rail connected to said machine tool;

a first and second movable rail engaging said first and second stationary rails, respectively, said first and second movable rails including first and second racks, respectively;

a pinion assembly including a shaft and a first and a second pinion gear matingly engaging said first and second racks, respectively; and

a bearing mount fixedly secured to said machine tool, said shaft being rotatably secured within said bearing mount and biased by said bearing mount towards said first and second racks.

112. A machine tool comprising:

a work table having side edges, front and rear edges, said front and rear edges defining a width of said work table between said side edges;

a first and second stationary rail connected to said work table, said stationary rails having a length which is not greater than said width of said work table;

a first and second movable rails engaging said first and second stationary rails, respectively;

a fence extending between said first and second movable rails, said movable rails being movable with respect to said stationary rails such that said fence can be located beyond said width of said work table outwardly of either side edge;

a plurality of pulleys rotatably secured with respect to said work table; and

a plurality of cables disposed between the first and second movable rails, each cable engaging at least one of said pulleys to ensure synchronized movement of said first and second movable rails.

113. The machine tool according to Claim 112 wherein, said work table is rectangular in shape and said plurality of pulleys includes a pulley rotatably secured adjacent to each corner of said work table.

114. The machine tool according to Claim 113 wherein, said plurality of
5 cables includes a first cable disposed between said first and second movable rails and engaging a first pair of said pulleys, said plurality of cables further including a second cable disposed between said first and second movable rails and engaging a second pair of said pulleys.

115. The machine tool according to Claim 112 further comprising a tension
10 adjustment assembly and an alignment adjustment assembly, said plurality of pulleys including a pair of pulleys rotatably secured to said tension adjustment assembly and a pair of pulleys rotatably secured to said alignment adjustment assembly.

116. The machine tool according to Claim 115 wherein, said plurality of
15 cables includes a first cable disposed between said first and second movable rails and engaging one of said pulleys of said tension adjustment assembly and one of said pulleys of said alignment adjustment assembly, said plurality of cables further including a second cable disposed between said first and second movable rails and engaging the other of said pulleys of said tension adjustment assembly and the other of said pulleys of said alignment adjustment assembly.

117. A machine tool comprising:

a work table having a front and a rear edge;

a first rack secured to said front edge of said work table;

a second rack secured to said rear edge of said work table;

5 a fence movably disposed on said work table and extending between said first and second racks;

a pinion assembly disposed between said fence and said first and second racks to ensure synchronous movement of said fence along said first and second racks.

10 118. The machine tool according to Claim 117 wherein, said pinion assembly comprises:

a pinion shaft rotatably secured to said fence;

a first pinion gear rotatably secured to said pinion shaft and in engagement with said first rack; and

15 a second pinion gear rotatably secured to said pinion shaft and in engagement with said second rack.

119. The machine tool according to Claim 117 wherein, said pinion assembly comprises:

a first geared shaft rotatably secured to said fence adjacent to said first rack, said first geared shaft including a front drive gear and a first rear drive gear;

5 an idler shaft rotatably secured to said fence adjacent to said first rack, said idler shaft including a front pinion gear in engagement with said first rack and said front drive gear;

a second geared shaft rotatably secured to said fence adjacent to said second rack, said first geared shaft including a second rear drive gear and a rear pinion gear, said rear pinion gear in engagement with said second rack; and

10 a drive belt extending between and drivingly engaging said first and second rear drive gears.

120. The machine tool according to Claim 117 wherein, said pinion assembly comprises:

15 a pinion shaft rotatably secured to said fence;

a first drive gear fixedly secured to said pinion shaft adjacent said first rack;

a second drive gear fixedly secured to said pinion shaft adjacent said second rack;

20 a first compound pinion gear rotatably secured to said fence adjacent said first rack, said first compound pinion gear engaging said first drive gear and aid first rack; and

a second compound pinion gear rotatably secured to said fence adjacent said second rack, said second compound pinion gear engaging rack, said
25 second drive gear and aid second rack.

121. A machine tool having a base, said machine tool comprising:

a first stationary rail connected to said base;

a first movable rail engaging said first stationary rail and extending generally parallel to said first stationary rail;

5 a fence assembly including:

a fence extending generally perpendicular to said first movable rail;

a first mount connected to said fence and adapted to engage said first movable rail; and

10 a first over-center latch pivotably secured to said first mount for engagement with said first movable rack to releasably lock said first mount to said first movable rail, said first mount defining a first cam surface for engagement with said first over-center latch to facilitate the release of said first over-center latch from said first movable rail.

15

122. The machine tool according to Claim 121 further comprising:

a second stationary rail connected to said base;

a second movable rail engaging said second stationary rail and
extending generally parallel to said second stationary rail; and

5 said fence assembly further comprising:

a second mount connected to said fence and adapted to
engage said second movable rail; and

a second over-center latch pivotably secured to said second
mount for engagement with said second movable rack to releasably lock said second
10 mount to said second movable rail, said second mount defining a second cam surface
for engagement with said second over-center latch to facilitate the release of said
second over-center latch from said second movable rail.

123. A fence assembly comprising:

a first stationary rail;

15 a first movable rail telescopically engaging said first stationary rail, said
first movable rail including a rack defining a plurality of rack teeth, said rack defining
an enlarged tooth disposed at one end of said rack;

a pinion shaft assembly including a pinion gear having a plurality of
gear teeth matingly engaging said plurality of rack teeth such that rotation of said
20 pinion shaft assembly causes movement of said first movable rail, said enlarged tooth
of said rack engaging a tip of one tooth of said plurality of gear teeth of said pinion
gear to create a force on said one tooth and limit said movement of said first movable
rail;

a second stationary rail spaced from and disposed generally parallel
25 to said first stationary rail;

a second movable rail telescopically engaging said second stationary rail; and
a fence disposed between and connected to said first and second movable rails.

5